

## **HQ 10<sup>th</sup> MTN DIV & Fort Drum**

EPA ID Number: NY0214020281

### **Other (Former) Names of Site**

Pine Camp (1908 -1951), Camp Drum (1951-1974), Fort Drum – Department of Army

### **Site Description**

Fort Drum is located at Jones Street and Off North Memorial Drive, in Fort Drum, in the northern portion of New York State approximately 10 miles northeast of Watertown. Fort Drum is the largest Army installation in the Northeast, covering about 107,265 acres.

The facility has twenty solid waste management units and seven areas of concern undergoing corrective action, including nine landfills, seven underground storage tank sites, four storage areas, four spill sites, and three explosive ordnance disposal areas.

Beginning in 1980, Ft. Drum conducted investigations and implemented interim corrective actions to evaluate and mitigate releases to the environment. The corrective action program is the responsibility of the US Department of Defense and the Army Corps of Engineers, and it is monitored by New York State Department of Environmental Conservation (NYSDEC) under the Resource Conservation and Recovery Act (RCRA) program.

### **Site Responsibility and Legal Instrument**

The Facility has RCRA interim status. A New York State consent order is being negotiated to ensure implementation of the final remedial measures.

### **Permit Status**

Fort Drum withdrew its Part B RCRA permit application and closed the interim status container storage facility in July 2000. Currently, corrective action is being performed on a voluntary basis until NYSDEC issue an Order on Consent. The Order is projected to be issued by December 2004.

### **Potential Threats and Contaminants**

Past solid waste disposal practices have resulted in the contamination of soil,

groundwater, surface water and sediment of waterways flowing through the facility. The primary sources of contamination are the leaking underground storage tanks, resulting in free product floating on the water table. Other sources of contamination are:

- The leachate from landfills which contains petroleum hydrocarbons, heavy metals, pesticides, solvents and paint components.
- Explosive ordnance disposal activities that have caused elevated levels of heavy metals, trace explosive and propellant compounds in soil and groundwater.
- Two buildings contaminated with pesticides.

Contamination is primarily on-site, but a groundwater plume consisting of gasoline with methyl tertiary butyl ether (MTBE) extends approximately 800 feet from its origin through the facility boundary to reach about 50 feet off-site. This plume originates from Building 2140, a former gas station located in the SW portion of the site near the Black River.

The following three pathways were evaluated at Fort Drum:

- the potential for chemicals in the Old Sanitary Landfill to leach to surface water,
- the potential for chemicals in the surface water and groundwater to migrate to both the Indian River and Black River located in the North East and South East portions of the facility, and
- the potential for chemicals of concern in the non-aqueous phase liquid (free liquid) to discharge to surface water and groundwater.

All potential exposure pathways were also evaluated such as on-site workers, trespassers, construction workers, and military personnel who may potentially be exposed to inhalation, ingestion and dermal contact.

A risk estimate was calculated for this site using maximum exposure point concentrations. The result of the estimated calculations shows that cumulative risks are within EPA's risk range ( $10^{-4}$  to  $10^{-6}$ ) for carcinogens, and below the hazard index of 1.0 for non-carcinogens.

With respect to the landfill seepage to the unnamed creek, dilution of contaminants in the creek occurs rapidly and does not pose an unacceptable risk to downstream recreational activities. That conclusion is supported by results of quarterly sampling performed in the creek.

However, there is a potential for contaminant exposure to ecological receptors in the area surrounding the site if the landfill seepage concentrations increases. All personnel working on site (construction and onsite workers) follow appropriate health and safety requirements to eliminate exposure. Trespassers are not anticipated to be exposed to contaminated areas at this facility as access is controlled.

## **Cleanup Approach and Progress**

Fort Drum is implementing Interim Corrective Measures (ICMs), which consist of: direct contaminant source removal, groundwater pump and treatment and free oil recovery operations. Approximately 11,000 tons of contaminated soils, 32,000 gallons of free

product and 100 million gallons of groundwater have been removed, treated and disposed of as part of the ICMs to date. Ft. Drum is currently conducting an ICM consisting of bioventing and aquifer air sparging in areas of Gasoline Alley. In addition, Ft. Drum will conduct, by 2005, a phytoremediation pilot study, via construction of a wetland, to address impacted surface water from the Old Sanitary Landfill.

The interim corrective measures already implemented include:

- the Removal of 22 underground storage tanks and contaminated soil along Gasoline Alley;
- debris removal and composite capping at two landfills;
- installation and operation of six free product and groundwater recovery systems;
- installation and operation of two bioventing systems; and
- demolition and soil removal to address pesticide and herbicide contamination.

To address the one area of off-site contamination, Fort Drum has installed five extraction wells to collect the groundwater and free product at the border, and so far has recovered more than 1,370 gallons of free product. In addition, air sparging wells with ozone injection were installed at the property line to address dissolved phase contamination. The effectiveness of these systems has been verified in the Corrective Measure Study Report dated May 14, 2002.

Fort Drum is currently conducting a facility-wide risk assessment and feasibility study for the Gasoline Alley areas as part of the remedy selection process. Final remedy selection is projected to occur by 2005.

## **Repository**

Copies of supporting technical documents and correspondence cited in this site fact sheet are available for public review at:

NYSDEC  
Division of Solid and Hazardous Materials  
Bureau of Radiation & Hazardous Site Management  
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